

STUDENTS' ENGAGEMENT IN SCHOOL: ANALYSES ACCORDING TO PEER VICTIMIZATION AND GRADE, THROUGHOUT ADOLESCENCE

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Abstract

Conceptual Frame:

In recent years, students' engagement in school (SES) has been pointed out a mean to prevent and address the occurrence of victimization behaviors between students, either as aggressors or as victims; however, there is a lack of empirical studies on the relationship between these constructs, throughout adolescence. Objective: To study the relationships between SES and victimization behaviors throughout the adolescence years of schooling is the aim of the present study.

Method:

The sample consisted of 685 students from different regions of the country, of both sexes, divided by grade (6th, 7th, 9th and 10th). Data were collected in classroom context through a survey that included items from the "Multidimensional Peer Victimization Scale" and the questionnaire "Student's Engagement in School - A Four Dimensional Scale (SES-4DS)", which includes a cognitive, an affective, a behavioral and an agentic dimension [1].

Results:

The results from the analysis of engagement variance (anova two-way 2x3), according to grade (6th and 7th versus 9th and 10th grades) and peer victimization (low, medium and high), allowed to find a decrease throughout schooling years, either in SES, as in peer victimization behaviors (PVB); the significant effects of the interaction of the variables PV and grade emerged only in the cognitive and behavioral dimensions, and were due to a larger decrease in such dimensions, in the group with higher PV, throughout the years.

Conclusions:

Results are considered within the context of social-cognitive perspective of development; and suggest further deeper analyses, in addition to activation measures of variables such as students' engagement in school, as a form to diminish peer victimization conducts.

Keywords: students' engagement in school; peer victimization behaviors; grade levels; adolescence.

1 CONCEPTUAL FRAMEWORK

School violence is a serious problem which leads to a number of negative consequences, in short, medium and long term, for those who commit it (the aggressor) as for those who are affected (the victim). This paper focuses on the last condition, i.e. the issues of victimization, understood as the aggression received by someone with difficulty in defending himself from the aggressor, superior in power, being that this aggression may be physical, verbal, social (manipulation) or property attack [2]

According to a query, made by Quental and Veiga [3], on data concerning well-being during childhood, in the Innocenti Report Cards (n° 7 from 2007), about 40% of the children surveyed in Switzerland, Austria and Portugal reported having been bullied. These data appear to be of concern and support Pereira and Pinto [4]'s ideas about a considerable increase in aggression and victimization situations in Portuguese Instruction, where one in five children claim to have been victimized by peers, often continuously. Although the prevalence of peer victimization appears to occur in younger students, with a tendency to decline with the increasing of age and/or school progression [5, 6, 7] it is still a potentially disruptive element of the school climate, throughout all levels of education, with possible negative effects on academic success, and an obstruction to students' attempts to raise academic achievement.

A construct which, in this context, has been presenting a protective role, is students' engagement in school [8]. Having not yet a fully consensual definition, students' engagement in school can be characterized as a multidimensional construct that includes students' thoughts, feelings and behaviors [9, 10] or as the experience of centripetal connection of the student to the school [11], whereas, in reference literature, several researches have highlighted its relationship with peer victimization [12, 13, 14]

For instance, an investigation carried out by Wilson [14] with the aim to study the sense of belonging, school climate, the prevalence of aggression among students and risk and protective factors related with disruptive behaviors, the Safe Communities-Safe Schools (SCSS) was applied to 2.327 students from 3rd grade and high school. The questionnaire included questions about students' perceptions toward school policies, student-teacher and peer relationships, school's physical conditions, the presence of gangs, attitudes toward school, victimization and bullying behaviors, as well as attitudes toward academic achievement and self-report of behavioral problems. Based on the results, Wilson noted, among other aspects, that students' connection to school, or the magnitude of sense of belonging, is inversely related to victimization. Although a negative school climate does not necessarily, and all by itself, produces an increase in situations of aggression and victimization between the students, "the quantity and quality of connections experienced by students in school seem to be amongst the aspects that contribute to better predict the probability of aggression and victimization" [14 p. 299].

Wang, Iannotti and Luk [13] using a representative sample of 3436 adolescents of the 7th and 8th grades (1584 males and 1852 females), aimed to examine the probable mediating role of the variables gender and peer support perception, in relation to victimization and adjustment/academic adaptation. From the results obtained, the authors observed an inverse association between victimization and academic adaptation, being stronger in females, when compared to males. Thus, bullying victims, particularly girls, are more vulnerable to a number of adverse situations, including school adjustment problems. The authors also noted that the perception of peer support is negatively related to victimization and positivity related to students' academic adjustment, with the intensity of the relationship being similar for both sexes. In fact, peer support perceived by students plays an important role in their social support, leading to a better academic adjustment; in turn, students who have fewer friends and feel less support from their colleagues, are at greater risk of being bullied, a situation which will support a greater maladjustment in school context.

This last idea was also established by Buhs [15] who mentions that the students' safety, perceived from friendly peer relationships, and the absence of the feeling of being bullied, allow him to feel part of the school. In contrast, children who experience victimization and exclusion become less engaged in school, which is noticeable through their little participation.

In a longitudinal investigation, conducted between 2007 and 2008, Seeley, Tombari, Bennett and Dunkle [12] aimed, besides other aspects, to study the relation between students' engagement in school, peer victimization, school absence, and school achievement, as well as to determine whether the levels of school engagement mediated the impact of victimization and school attendance. For this purpose, they used a questionnaire developed and administrated by the Colorado Foundation for Families & Children, which included the following variables: school engagement, absenteeism, victimization between peers, academic achievement and sociodemographic variables (e.g., sex and ethnicity). The sample included 860 students from 6th grade, from Colorado School District, 46,4% males and 52,1 % females, 1%, white, 29,9% Hispanic, 4,5 % Asian, 1,7% black and 0,7% from other ethnic groups. Results showed a negative association between school engagement and peer victimization and, particularly, a significant and negative association between behavioral and emotional engagement and victimization. However, they did not show a statistically significant association between cognitive engagement and victimization. The authors explain these results by claiming that, in theory, the victims of verbal or physical bullying, as well as of exclusion, are affected in behavioral and emotional terms, but not in their cognitive abilities, in short term. Results also failed to show a direct relationship between victimization, absenteeism and school achievement, still, this relation becomes meaningful when mediated by engagement. When the victims of aggression report low levels of engagement, are less likely to see compromised their school attendance and academic achievement; on the other hand, if they report high levels of engagement, attendance and achievement, they are more likely to be affected. Thus, it is clear that the levels of engagement are moderator variable of the impact of victimization on students' attendance to school. In light of these results, Seeley et al. argue that the programs and intervention strategies in peer victimization should

include the promotion of students' engagement in school, which, in turn, will help to ensure students attendance to school and the increase of their academic success.

Also in this field, Chen and Astor [16] aimed to examine whether peer violence and against teachers is directly associated with negative personal threats, parental monitoring, victimization, low school engagement, risk peer group, and weak relations between teachers and students, as well as to understand whether peer violence is indirectly associated with negative personal threats, parental monitoring, victimization, low school engagement, risk peer group, and weak relations between teachers and students, in a group of students attending Academic High Schools and Vocational High Schools. For this purpose, they used a Scale from the Prevention and Control of School Violence in Taiwan, which focused on the following aspects: peer violence, violence toward teachers, victimization, school engagement, risk peer group, weak interaction between students and teachers, negative personal threats and parent monitoring. The sample consisted of 7841 students, 48,4% boys, 51,3% girls and 0,3% without sex specification, of whom 48,1% attended an Academic High School, and 51,9% a Vocational High School. Results indicate that negative personal threats, parent monitoring, victimization, low student's engagement in school and weak interaction between students and teachers contribute to the violence perpetrated between peers and toward teachers. A more detailed analysis showed that violence between peers is directly associated with personal threats and is indirectly mediated by students engagement and risk peer group. Personal threats do not directly relate with violence toward teachers, however, have stronger effects if indirectly mediated by students' engagement, risk peer group and students-teachers interactions. Regarding parental monitoring, the authors did not observe a direct association with peer violence and violence toward teachers. Yet, the effect of parental monitoring is mediated by the low levels of student' engagement, risk peer group and weak students-teachers interactions. With respect to peer victimization, direct effects are found for both types of school violence (between students and against teachers); results show that, compared with the low level of school engagement, with the weak students-teachers relations and with risk peer group, victimization had a mediator effect on peer violence and against teachers. Finally, by analyzing the differences between the two education systems, the authors found very similar results on the mediator effect of the variables school engagement, risk peer group, and students-teachers interactions on peer violence and against teachers. The same happened when they proceed to the analysis according to sex, still, a stronger influence was found in boys when compared to girls, in what concerns to personal threats, risk peer group and weak student-teacher interaction; victimization also had a stronger impact on violence toward teacher, in boys.

Mehta, Cornell, Fan and Gregory [8] in a more recent study, aimed to determine the extent to which bullying in high school is associated with low levels of student's engagement in school. More specifically, they intended to analyze student's engagement in school in terms of commitment toward school (cognitive and affective dimensions) and participation in school (behavioral dimension), with the goal to investigate whether students' perceptions about the school climate ate associated with low levels of engagement, considering, also, individual criterion (e.g., gender and ethnicity) and contextual (e.g., school size and proportion of students from ethnic minorities) variables. To meet this purpose, the authors used a sample of 7058 9th grade students, from 289 schools in Virginia, of which, 50% were male, 63% caucasians, 22% afro-american, 5% latin/hispanic, 3% asian american, 1% american indians and 5% of other ethnies. Several results were found concerning individual variables. Firstly, they observed that both sex and race are predictors of school engagement and respective dimensions, with girls appearing cognitively and behaviorally more engaged compared to boys, and students from ethnic minorities affectively and cognitively more engaged than caucasians; the caucasian students, though, appear behaviorally more engaged (participation) than students from ethnic minorities. With regard to the relationship between bullying climate and engagement, considering individual variables, results show that students who perceive school as a place where bullying often occurs, report lower engagement (affective and cognitive dimensions) when compared to those who perceive fewer bullying situations. In relation to participation (behavioral dimension), there are no statistically significant results regarding its relation with the perception of bullying situations; nevertheless, the authors note that students who perceive a bullying climate at school show less participation in extracurricular activities. In respect to contextual variables, the authors noted that school size emerges as a predictor of affective and cognitive engagement, contrary to behavioral engagement. In turn, the proportion of students from ethnic minorities does not appear as a predictor of students' engagement in school. Finally, analyzing the relationship between students' perception about bullying climate and engagement in school, considering contextual variables, the authors found a tendency toward an inverse relation, that is, schools with more bullying situations reflect lower levels of students' engagement in school.

2 EMPIRICAL STUDY

In light of the above, it is observed that students' engagement in school plays a determinant role in the issues related to students' aggression-victimization behaviors, which indicates that SES activation strategies may have an important contribution to structure school climate. It is worth noting, however, the need for more research on the relationship between SES and peer victimization, considering the variable students' grade level, and this study may make a contribution in this field.

For this purpose, we return to the definition of SES proposed by Veiga [11], as the experience of a centripetal connection of the student to the school, encompassing four dimensions: affective, related to the students' sense of belonging to academic setting, friendly relationships with school members and sense of inclusion; behavioral, operationalized as student's specific conducts within classroom and toward teachers, such as disturbing and distracting behaviors; cognitive, concerning the student's capacity to process information, to seek for relations between the several concepts learned, to orient and elaborate study plans; and personal agency, which connects to a conceptualization of the student as an agent, with initiatives, interventions in classes, dialogues with teachers, questions raised and suggestions made to the teachers [1].

2.1 Purpose

To study the relations between students' engagement in school (SES) and victimization behaviors throughout adolescence is the purpose of this study.

2.2 Methodology

The sample included 685 students, from several regions of the country and both sexes, from 6th grade (n=138), 7th grade (n=170), 9th grade (n=197) and 10th grade (n=180). The students' ages vary from 11 to 19 years old, being the mean age 13.8 years (SD = 1.90).

The data were collected using the Student's Engagement in School - A Four Dimensional Scale (SES-4DS) and the Peer Victimization Scale (PVS), adapted from the Multidimensional Peer Victimization Scale by Mynard and Joseph [2].

The SES-4DS was developed by Veiga [1] in the context of the Project PTDC/CPE-CED/114362/2009 - Student's Engagement in School: Differentiation and Promotion. It includes a set of 20 statements which aim to assess student's engagement in school, in its cognitive (items 1-5), affective (items 6-10), behavioral (items 11-15) and personal agency (items 16-20) dimensions. The response scale is Likert type, 6 points, where 1 corresponds to total disagreement and 6 to a total agreement. The majority of the items are formulated in a positive way, however, the items from the behavioral dimension are expressed in a negative manner, being necessary to read the responses in reverse score (lower scores indicate higher engagement). Overall, higher scores indicate a higher engagement. The study of the scale's psychometric properties indicates a promising instrument [1].

The Peer Victimization Scale (PVS) consists of 3 items (They have tried to turn my friends against me; I have been physically injured and I have been insulted with swearwords), with responses from 1 to 6 (totally disagree to totally agree). The study of PVS's internal consistency encountered a 0.74 alpha (global sample), a 0.68 alpha (6th and 7th grades) and a 0.80 alpha (9th and 10th grades). The data were collected in classroom context and all ethic procedures required in research were respected.

2.3 Results

Table 1 shows the distribution of students' responses in the three items of PVS, in terms of the proportion of agreement and disagreement raised.

Table 1. Distribution of the proportion of agreement/disagreement in the PVS items

Victimization Items (physical, verbal e social)	D	A
I have been physically injured	90,9	09,1
I have been insulted with swearwords	80,6	19,4
They have tried to turn my friends against me	75,6	24,4

Based on the results we can say that the group of respondents, in general, presents relatively low values on victimization when the aggression perpetrated by their peers is physical. However, in terms of the suffering caused by verbal and, particularly, social aggression, the values of the agreement responses gain another weight, calling attention to the need for prevention and intervention in this domain. Table 2 presents the results of the correlations between SES-4DS and PVS.

Table 2. Correlations between SES- 4DS's dimensions and PVS's items

SES-4DS / Peer Victimization	They have tried to turn my friends against me	I have been physically injured	I have been insulted with swearwords	Total Victimization
Cognitive	-,049	-,037	-,104**	-,079*
Affective	-,288**	-,276**	-,342**	-,370**
Behavioral	-,212**	-,248**	-,266**	-,293**
Personal Agency	-,063	-,070	-,032	-,069
Total	-,157**	-,150**	-,229**	-,220**

The analysis of Table 2 informs about the significant negative, still low, relation between global Student's Engagement in School and the suffering resulting from peer victimization situations. A more detailed analysis allows observing that the personal agency dimension behaves differently from the others, and does not correlate with victimization. It also shows that the cognitive dimension is not statistically related with physical and verbal victimization, possibly because the aggression situations have more echoes in students' behavioral and emotional aspects [12]. Finally, we observe that the engagement dimensions which appear more correlated with victimization situations are the affective and behavioral, thus, we can conclude that sense of belonging and integration, as well as their respecting behaviors toward teachers and learning contexts, are the aspects which contribute the most to the quality of school relationships and, consequently, to the decrease of victimization situations. These results are in line with what has been observed by other authors. For example, Wilson [14] found that students who felt part of the school were less exposed to aggression situations. Wang, Ianotti and Luk [13] concluded that students who developed a good social support were less vulnerable to victimization situations, which, in turn, contributed to an increase in their school engagement. On the other hand, data from a study by Buhs [15] indicate the experience of exclusion and victimization promotes a decrease of students' in participation in school activities.

We then proceed to the analysis of the data according to grade level. Table 3 shows the mean and standard deviation of the results obtained in the SES-4DS, for the global scale and each dimension, according to the year of schooling and peer victimization.

Table 3. Mean and Standard deviation in engagement (SES-4DS), according to grade level and peer victimization (PVS)

SES			Cognitive		Affective		Behavioral		Agency		Total	
Grade	PVS	N	M	DP	M	DP	M	DP	M	DP	M	DP
6th and 7th	low	112	21,3	0,4	26,5	0,4	27,7	0,3	19,8	0,5	95,3	1,1
	medium	126	19,3	0,4	25,5	0,4	27,1	0,3	19,2	0,5	91,2	1,0
	high	70	18,9	0,6	22,6	0,5	26,2	0,4	18,9	0,7	86,6	1,4
9th and 10th	low	119	17,8	0,4	25,9	0,4	27,7	0,3	17,3	0,5	88,7	1,1
	medium	170	17,8	0,4	24,9	0,3	26,9	0,2	18,1	0,4	87,7	0,9
	high	88	17,2	0,5	21,4	0,5	24,5	0,3	19,2	0,6	82,3	1,3

In Table 3 we can see that the mean of the results in total SES-4DS is slightly higher in younger students (6th and 7th grades), compared to their colleagues from 9th and 10th grades, in the three levels of victimization considered. The tendency toward a greater engagement in younger students has been found in other international [17] and national [18] studies. Additionally, in both groups, lower scores in

engagement correspond to higher levels in victimization, considering the total score in engagement and also in each dimension. With exception to the personal agency dimension, in the older students group where higher levels of engagement correspond to an also higher level of victimization ($M_{EAE-E4D} = 17,3$ low PVS; $M_{EAE-E4D} = 19,2$ high PVS). This particular aspect deserves a further analysis, however, one can hypothesize that students with initiative in classes, establishing dialogues with the teacher, expressing opinions, posing questions or making suggestions, may be excluded and laughingstock by their peers, being labeled as “preppy” or “fawners”. Table 4 shows the analysis of the results variance.

Table 4. Analysis of variance in engagement (EAE-E4D), according to grade and peer victimization PVS

	Cognitive				Affective			Behavioral			Agency			Total EAE-4DS		
	GL	QM	F	S	QM	F	S	QM	F	S	QM	F	S	QM	F	S
Grade Level	1	779,7	34,5	***	105,9	5,5	*	63,3	6,2	**	189,8	5,8	*	3593,9	26,0	***
PVS	2	121,9	5,4	**	854,8	44,1	***	263,4	25,6	***	13,2	0,4	ns	2672,5	19,3	***
PVS*Grade	2	71,4	3,2	*	5,1	0,3	ns	43,6	4,2	*	93,7	2,9	ns	153,1	1,1	ns

* $p < ,05$; ** $p < ,01$; *** $p < ,001$

As seen in Table 4, there is a main effect of grade level in total as well as in each dimension of engagement, since students from 6th and 7th grades show a stronger centripetal relation with school than 9th and 10th students, confirming the results already presented in table 3. There is also a main effect of peer victimization on engagement, except on personal agency dimension, which reinforces the interpretation that students who are victims of aggression report less school engagement.

The interaction effect of the variables victimization and school grade occurred in the cognitive and behavioral dimensions. In the cognitive dimension (Figure 1), the interaction was driven by the decrease in engagement from 6th/7th grades to 9th/10th grades, in the group of students with either high ($t = 2,21$; $GI = 156$; $p < 0,05$), or medium ($t = 2,76$; $GI = 294$; $p < 0,01$) victimization, and, mostly, in the group with low victimization. A significant decrease was found in the behavioral dimension (Figure 2), but merely in the group with high victimization ($t = 2,43$; $GI = 156$; $p < 0,05$).

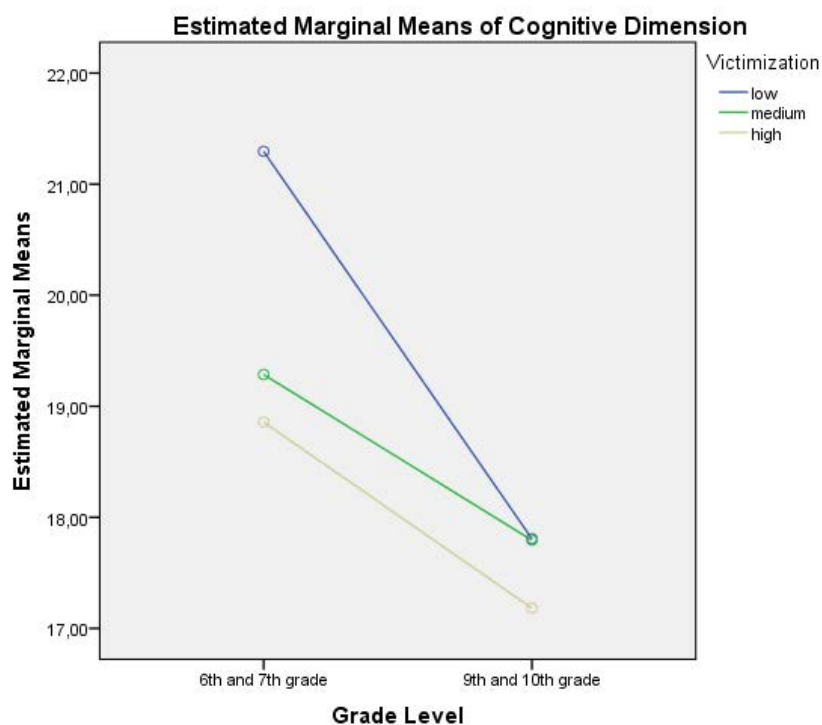


Figure 1

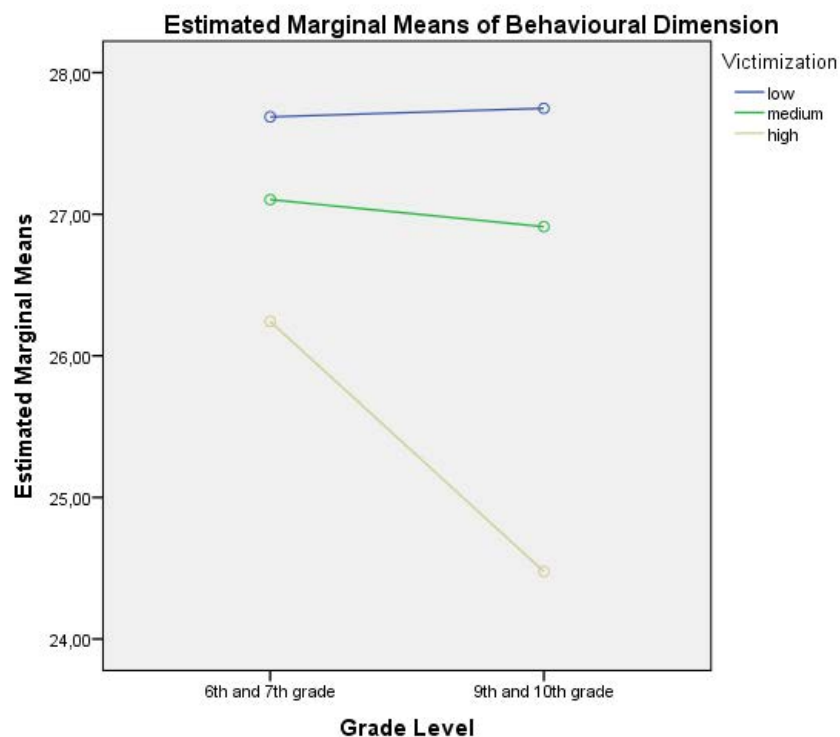


Figure 2

3 CONCLUSION

Nowadays, Portuguese schools handle with several difficulties, including a significant presence of aggression and bullying situations [4]. This decrease in the connections experienced by students may contribute to a negative climate of interactions within school, which might increase the probability of aggression and victimization, besides being an obstacle to learning. In this setting, the study of school engagement becomes central, as research conducted has come to establish the idea that engaged students show a better adjustment in school, both in terms of achievement and behavior [19].

The results obtained in the present study, which aimed to understand how the relations between student engagement in school and victimization behaviors vary during adolescence, using the Student's Engagement in School: A Four Dimensional Scale (SES-4DS) and the Peer Victimization Scale (PVS) with a sample of 685 Portuguese students, is in line with other investigations, which indicate a higher engagement in younger students or in early school years, as well as a higher engagement in students with more positive experiences in school. This aspect suggests the benefit of students, engagement in school activation measures, as a response to decrease peer victimization conducts, as a possible answer to these days school and educational problems, although the results also raise the necessity of continuous reflection and further analysis.

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